**Do You Eat the Red Ones Last?**

"When you eat your Smarties do you eat the red ones last, do you suck them very slowly, or crunch them very fast, they are candy-coated chocolate, so tell me when I ask, when you eat your Smarties, do you eat the red ones last?"

**Aim: To Find the probability of drawing a red Smartie.**

Equipment: calculator, clean hands, 1 box of Smarties, 1 cup, 1 paper towel

1. Collect one box of Smarties between two students.
2. Guess what you think the probability is in picking a red Smartie.

The Probability of drawing a red Smartie is \_\_\_\_\_\_\_\_\_.

1. Count the number of Smarties contained in the box.
2. The number of Smarties was \_\_\_\_\_\_\_\_.
3. Count the number of different coloured Smarties.
4. Record your results.
5. Record the probability of choosing a coloured Smartie from your box of Smarties.
6. The Probability of drawing a RED smartie was \_\_\_\_\_\_\_\_\_\_\_.
7. Will it be the same for every group? Why? Why not?
8. Place the Smarties back in the box. Pull out a Smartie, record the colour. Put it back. Shake the box again, GENTLY. Pull out a Smartie. **Do this the number of times you** **have of the number of Smarties.** For example if you have 55 Smarties then you do it 55 times.
9. Record your results

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Yellow | Red | Orange | Green | Brown | Purple | Pink | Blue |
| 5. Number of Smarties |  |  |  |  |  |  |  |  |
| 7. Probability |  |  |  |  |  |  |  |  |
| 10.Tally |  |  |  |  |  |  |  |  |
| 10.Number |  |  |  |  |  |  |  |  |
| 11.My probability for each colour |  |  |  |  |  |  |  |  |

**Part Two**

1. Place the Smarties in a cup. Pull out a Smartie, record the colour. Put it back. Shake the box again, GENTLY. Pull out a Smartie. Do this 50 times. Record your results

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Colour of Smartie** | **Number of Smarties** | | | |
|  | **My results** | **Class results** | **Fraction of Coloured Smartie**  **Total Number of Smarties** | **Written as a Decimal** |
| **Red** |  |  |  |  |
| **Green** |  |  |  |  |
| **Brown** |  |  |  |  |
| **Blue** |  |  |  |  |
| **Orange** |  |  |  |  |
| **Yellow** |  |  |  |  |
| **Purple** |  |  |  |  |
| **Pink** |  |  |  |  |
| **Total** |  |  |  |  |

The class total of pulling out a Smartie was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Class Results

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | My total | red | green | brown | blue | orange | yellow | purple | pink |
| 1 |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |  |  |  |
| total |  |  |  |  |  |  |  |  |  |